PROJECT ANNEX 4

COOPERATION IN THE FIELD OF CLEAN FOSSIL ENERGY TECHNOLOGIES

The Department of Energy of the United States of America (DOE) and the Secretariat of Energy of the United Mexican States (SE), hereinafter referred to as "the Parties";

TAKING INTO ACCOUNT the provisions of the Agreement between the Department of Energy of the United States of America and the Secretariat of Energy of the United Mexican States for Energy Cooperation signed on May 7, 1996, hereinafter referred to as "the Agreement";

RECOGNIZING the need to promote the development and use of fossil energy technologies that will address environmental issues, increase energy diversity and security, **and** promote sustainable development; and

NOTING that the Parties will mutually benefit by working together to accelerate the development and use of clean fossil energy technologies in accordance with Article 5 of the Agreement;

Have agreed as follows:

ARTICLE 1

OBJECTIVES

The objective of this Annex is to promote the use of fossil energy technologies that while eliminating environmental issues as barriers to fossil fuel production and use, maintain the availability and affordable use of fossil fuels in both countries.

ARTICLE 2

SCOPE

The Parties are interested in cooperative activities related to both base and enabling technologies, including the underlying science and engineering, along with assessment of technology options and economics. Technical areas for possible cooperation include research, development, and demonstration activities related to the following topics:

a. Environmentally friendly technologies for the discovery, characterization, production, processing, and transportation of fossil fuels;

b. Advanced, high-efficiency power systems, including:

   i. integrated gasification combined cycle (IGCC) systems;

   ii. pressurized fluidized bed combustion (PFBC) systems;

   lll. advanced pulverized coal combustion (APCC) systems;

   iv. fuel cells;

   v. advanced gas turbines; and

   vi. hybrid systems;

c. Advanced environmental control systems for conventional and advanced power systems, including:

   i. particulates;

   ii. nitrogen oxides (No,);

   iii. sulfur oxides (Sox);

   iv. hazardous air pollutants; and

   v. greenhouse gases;

d. Production of high-quality transportation fuels and chemicals;

e. Advanced central-station power and/or fuels production systems with very low emissions;

f. Sequestration options for carbon dioxide (CO_2) and other greenhouse gases from fossil fuel-based systems, including capture, storage, and utilization;

g. Technologies to recover coal bed and coal mine methane, including options to sequester carbon dioxide from fossil fuel-based systems;

h. Other environmental technologies for assessment and remediation of ground water and soils, including acid mine drainage, affected by fossil fuel production and use; and

i. Other related technologies, such as minimization and utilization technologies for wastes resulting from fossil fuel production and use (e.g., coal combustion by-products).

Other areas of cooperation may be added from time to time by mutual written agreement of the Parties in the form of an exchange of letters between the Principal Coordinators for the Agreement.

ARTICLE 3

MANAGEMENT

The Mexican Petroleum Institute (IMP) shall represent SE for the programmatic aspects of this Annex. The Office of Fossil Energy shall coordinate the implementation of this Annex for DOE.

The Parties shall each designate a technical representative to be responsible for implementing each specific project under this Annex. The technical representatives will report the progress of activities to the Principal Coordinators, pursuant to Article 4 of the Agreement.

A detailed work plan will be developed for each specific project. Work plans will include schedules, cost estimates, cost sharing, personnel assignments, access to facilities, use and exchange of equipment, and other matters as required by the specific nature of the project.

The Parties may invite other government organizations including national laboratories, institutes and technical centers or private institutions in their respective countries to participate in activities under this Annex. Such participation shall be coordinated with the Principal Coordinators, and relevant technical representatives, and shall be subject to the provisions of the Agreement and this Annex.

ARTICLE 4

INTELLECTUAL PROPERTY, CONFIDENTIAL INFORMATION AND BUSINESS-CONFIDENTIAL INFORMATION

Pursuant to Article 7 of the Agreement, provisions for the protection and allocation of intellectual property are set forth in the Annex on Intellectual Property. Provisions for the treatment of confidential and business-confidential information are set forth in Article 6 of the Agreement.

Any scientific and technical information transmitted by one Party to another Party under this Annex shall be accurate to the best knowledge and belief of the transmitting Party, but the transmitting Party does not warrant the suitability of the scientific and technological information transmitted for any particular use or application by the receiving Party or any third party.

ARTICLE 5

COSTS AND LEGAL PROVISIONS

Except as otherwise agreed in writing, all costs resulting from cooperation under this Annex will be borne by the Party that incurs them. Each Party will carry out its obligations under this Annex subject to the availability of appropriated funds and personnel and to its applicable laws and regulations.

ARTICLE 6

ENTRY INTO FORCE AND TERMINATION

This Annex shall enter into force upon signature by the Parties and shall remain in force for the term of the Agreement, unless terminated earlier.

This Annex may be amended or extended by mutual written agreement of the Parties. Such amendments must be presented in writing and must specify the date on which they enter into force.

This Annex may be terminated at any time by either Party upon 6 (six) months written notice to the other Party.

Signed in duplicate, at Cancun, Quintana Roo, Mexico, this 7th day of December 1999, in the English and Spanish languages, each text being equally authentic.

FOR THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA

Bill Richardson

FOR THE SECRETARIAT OF ENERGY OF THE UNITED MEXICAN STATES

Luis Téllez K.